

**REMARKS**

By this amendment, claims 1, and 17-20 are revised, claim 28 is added, and claims 16 and 21-26 are canceled to place this application in condition for allowance. Currently, claims 1-15, 17-20, 27 and 28 are before the Examiner on the merits.

First, the specification is revised to correct the informalities noted in the office action.

Second, claim 1 is revised to address the instances of indefiniteness in the claims.

Third, claim 16 is inserted into claim 1 and claim 16 is canceled. In addition, the claims 21-26 are canceled since the embodiment having the needle valve is no longer appropriate now that the support bush is included in claim 1.

Lastly, claim 28 is added to affirmatively recite the absence of the needle valve. This negative limitation is supported by the specification, see the description of Figure 6 and page 12, line 1.

Turning to the prior art rejection, the rejection based on 35 U.S.C. § 102(b) and DE 20302854 (DE) is no longer appropriate since claim 16 is now included in claim 1 and claim 16 was not rejected based on 35 U.S.C. § 102(b).

The relevant rejection is now the combination of DE and United States Patent No. 6,769,901 to Babin et al. (Babin). In making this rejection, the Examiner alleges that Babin discloses a support bush as convention component between an insert and a mold insert.

Applicants traverse the rejection of claim 1, as amended on the grounds that the Examiner has not established a *prima facie* case of obviousness.

As admitted by the Examiner, DE does not teach the supporting bush. Thus, the question is whether such a bush is disclosed in Babin, and if so, whether there is a reason to employ it in the nozzle arrangement of DE.

Babin discloses a nozzle arrangement that has a nozzle body 12, and nozzle tip 14, and a nozzle element 16. The nozzle tip is held in place by engagement between the connection 30 on the inside wall of the nozzle body and the connector portion 48 on the outside surface of the nozzle element 16. More simply, the nozzle element 16 screws into the nozzle body 12 to hold the nozzle tip in place.

Turning back to claim 1, this claim requires the combination of four components, the nozzle casing 20, nozzle orifice element 40, the insert 50, and the support bush 70. Moreover, the insert is longitudinally displaceable and clamped between the nozzle casing and the mold insert. The support bush is situated between the insert 50 and the mold insert.

In Babin, there is no insert that is longitudinally displaceable and which is clamped between the nozzle casing and the mold insert. If the Examiner calls the nozzle element 16 as the support bush, Babin does not teach all of the elements of claim 1. Hypothetically, the Examiner could consider the nozzle tip 14 of Babin as the nozzle orifice element, the nozzle element 16 as the support bush, and the nozzle body 12 as the claimed nozzle casing. This interpretation means that there is no insert. If the Examiner wants to call the nozzle element 16 an insert, then Babin does not teach a

support bush. In either case, it is error for the Examiner to say that it is conventional to use a support bush between an insert and a mold insert based on the teachings of Babin. Babin does not teach the conventionality of the use of a support bush in a nozzle arrangement that uses an insert such as that disclosed in DE. Without this teaching, a *prima facie* case of obviousness cannot be said to exist.

In addition, DE and Babin are fundamentally different systems. DE employs an insert, whereas Babin does not. In Babin, the nozzle element 16 is used to hold the nozzle tip in place. DE does not employ such an arrangement so why would one of skill in the art take the nozzle element 16, which the Examiner refers to as a support bush and use it in DE. Given the vast difference between the nozzle arrangement of DE and Babin, there is no legitimate reason to make the modification proposed by the Examiner. If anything, one of skill in the art would be taught to use the nozzle arrangement of Babin in place of the one used by DE; not pick select portions of Babin for use in DE.

Also, the support bush is not just an arbitrary add on to the insert of DE. An objective of the invention is to provide a nozzle, which is on one hand wear resistance, especially in the area of the gate. On the other hand, the nozzle can always be held in the correct position while being mounted in the mold insert. Also, in the case of wear of the nozzle parts in the neighborhood of the gate, the worn parts are easily replaced. This is achieved by configuring the support bush between the insert and the mold inserts. The very advantage of the support bush is that it holds the nozzle parts right in

place and also provides insulation between the heated nozzle parts and the cooled mold inserts.

To recap, the rejection is improper for two reasons. First, Babin does not teach the conventionality of using a support bush in combination with an insert, hollow casing, and nozzle orifice element. Moreover, there is no legitimate reason to pluck the nozzle element 16 of Babin and use it in the nozzle arrangement of DE. Thus, a *prima facie* case of obviousness is not established by the combination of DE and Babin.

Since claim 1 is patentably distinguishable over the prior art, its dependent claims are also in condition for allowance.

Lastly, new claim 28 is believed to be separately patentable. Both DE and Babin relate to nozzles that include needle valve nozzles. The invention as defined in claim 28 is directed to a nozzle with an open gate. Therefore, in order to meet the limitations of claim 28, the Examiner would have to say that it would be obvious to remove the needle valves of DE and Babin in order to reject claim 28. However, there is no reason to do so and a valid rejection based on DE and Babin cannot be formulated against claim 28. Thus, this claim is patentable on its own.

Accordingly, the Examiner is requested to examine this application and pass all claims being considered onto issuance.

The above constitutes a complete response to all issues raised in the Office Action dated November 21, 2009.

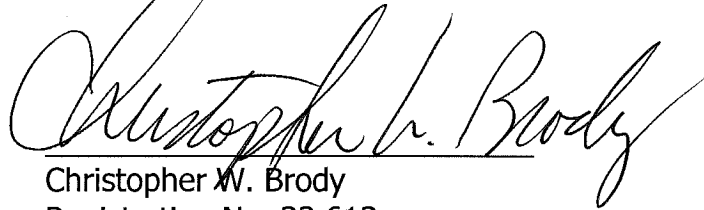
Again, reconsideration and allowance of this application is respectfully requested. Applicants respectfully petition for a two-month extension of time. The Director is

Application No.: 10/567,756

authorized to charge the necessary fee of \$245.00 for this filing to the undersigned's  
Deposit Account No. 50-1088.

Please also charge any fee deficiency or credit any overpayment to Deposit  
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Respectfully submitted,  
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